

CLAIMS:

1. A method of determining a zero point (V_0) of a current sensor in a circuit for operating a gas discharge lamp, characterized by the following process steps:
the current (I_1) through the sensor is switched off for a short period during a first half wave (13) and a first test value (V_6) is determined,
then the current (I_1) through the sensor is switched off for a short period during a second half wave (14) having a different polarity and a second test value ($-V_7$) is determined,
whereupon an average value is formed of the two test values ($V_6, -V_7$), and the zero point (V_x, V_0) is determined by means of said average value.
2. A method as claimed in claim 1, characterized in that the switching-off takes place in two half waves ($13, 14$) in quick succession.
3. A method as claimed in claim 1, characterized in that the test value ($V_6, -V_7$) of the current sensor immediately before a renewed switch-on of the current (I_1) is used for determining the zero point (V_x, V_0).
4. A method as claimed in claim 1, characterized in that an interval between two measurement groups, each group consisting of two measurements in two respective half waves ($13, 14$) of different polarity in quick succession, amounts to several seconds up to minutes.
5. A method as claimed in claim 4, characterized in that the measuring interval is varied.
6. A method as claimed in claim 1, characterized in that a position (t_3, t_4) of a current blanking interval void within a half cycle ($13, 14$) is varied.
7. A method as claimed in claim 1, characterized in that the lamp current is increased in the time before or after the current blanking interval.

PHDE030334

7

PCT/IB2004/051718

8. A circuit arrangement for a high-pressure gas discharge lamp implementing a method as claimed in any one of the claims 1 to 7.

9. A projection system with a circuit arrangement for high-pressure gas discharge lamps, the circuit arrangement implementing a method as claimed in any one of the claims 1 to 7.

10. A circuit arrangement for operating a gas discharge lamp by means of a square-wave alternating current (1, 11), wherein the circuit arrangement comprises a bipolar current sensor, characterized in that the square-wave alternating current (1, 11) can be switched off for a short period during a half wave (3, 4, 13, 14).